

# Animal Protection Portfolio: Internal Review

## Portfolio 3.2B

**Supporting Objective 3.2B: Develop and Deliver  
Science-based information and Technologies to  
Reduce the Number and Severity of Agricultural  
Pest and Disease outbreaks**

**CSREES Goal 3: Enhance Protection and Safety  
of the Nation's Agriculture and Food Supply**

**December 5, 2006**



**Internal Review Portfolio 3.2B**  
(December 5, 2006)

**I. BACKGROUND**

- **The following knowledge areas (KAs) are included in Portfolio 3.2B.**
  - 311 ANIMAL DISEASES
  - 312 EXTERNAL PARASITES AND PESTS OF ANIMALS
  - 313 INTERNAL PARASITES IN ANIMALS
  - 314 TOXIC CHEMICALS, POISONOUS PLANTS AND NATURALLY OCCURRING TOXINS AND OTHER HAZARDS AFFECTING ANIMALS
  - 315 ANIMAL WELFARE, WELL-BEING, AND PROTECTION
  - 721 INSECTS AND OTHER PESTS
  - 722 ZOONOTIC DISEASES AND PARASITES AFFECTING HUMANS
  - NAHLN NATIONAL ANIMAL HEALTH LABORATORY NETWORK
- **When the portfolio was first reviewed?** March 2005
- **Portfolio score from the PREP in 2005:**

Portfolio 3.2 B received an overall score of 95 from the panel in the 2005 PREP, and an overall score of 96 from the internal self-assessment team. Table I-A below shows the breakdown of scores for different questions and criteria.

<b>Table I-A. Scoring of 3.2B PREP Expert Panel</b>			
<b>Criteria</b>	<b>Recommendations</b>	<b>Previous Score</b>	<b>Current Score</b>
<b>Relevance</b>			
1. Scope		3	3
2. Focus		3	3
3. Emerging Issues		3	3
4. Integration		2	2
5. Multi-disciplinary		3	3
<b>Quality</b>			
1. Significance		3	3
2. Stakeholder		2	2.5
3. Alignment		3	3
4. Methodology		3	3
<b>Performance</b>			
1. Productivity		3	3
2. Comprehensiveness		3	3
3. Timeliness		3	3
4. Agency guidance		3	3
5. Accountability		2	2
<b>Overall score</b>		<b>95</b>	<b>96</b>

## **II. CSREES response to PREP recommendations that cross all portfolios**

In response to directives from the Office of Management and Budget (OMB) of the President, CSREES implemented the Portfolio Review Expert Panel (PREP) process to systematically review its progress in achieving its mission. Since this process began in 2003, fourteen expert review panels have been convened and each has published a report offering recommendations and guidance. These external reviews occur on a rolling five-year basis. In the four off years an internal panel is assembled to examine how well CSREES is addressing the expert panel's recommendations. These internal reports are crafted to specifically address the issues raised for a particular portfolio; however, despite the fact that the expert reports were all written independent of one another on portfolios comprised of very different subject matter, several themes common to the set of review reports have emerged. This set of issues has repeatedly been identified by expert panels and requires an agency-wide response. The agency has taken a series of steps to effectively respond to those overarching issues.

### **Issue 1: Getting Credit When Credit is Due**

*For the most part panelists were complimentary when examples showing partnerships and leveraging of funds were used. However, panelists saw a strong need for CSREES to better assert itself and its name into the reporting process. Panelists believed that principal investigators who conduct the research, education and extension activities funded by CSREES often do not highlight the contributions made by CSREES. Multiple panel reports suggested CSREES better monitor reports of its funding and ensure that the agency is properly credited. Many panelists were unaware of the breadth of CSREES activities and believe their lack of knowledge is partly a result of CSREES not receiving credit in publications and other material made possible by CSREES funding.*

### **Issue 1: Agency Response:**

To address the issue of lack of credit being given to CSREES for funded projects, the Agency implemented several efforts likely to improve this situation in 2005.

First it developed a standard paragraph about CSREES's work and funding that project managers can easily insert into documents, papers and other material funded in part or entirely by CSREES.

Second, the Agency is in the process of implementing the "One Solution" concept. One Solution will allow for the better integration, reporting and publication of CSREES material on the web. In addition, the new Plan of Work (POW), centered a logic model framework, became operational in June 2006. The logic model framework is discussed in more detail below. Because of the new POW requirements and the POW training conducted by the Office of Planning and Accountability (also described in more detail below), it will be simpler for state and local partners to line up the work they are doing with agency expenditures. This in turn will make it easier for project managers to cite CSREES contributions when appropriate.

### **Issue 2: Partnership with Universities**

*Panelists felt that the concept of partnership was not being adequately presented. Panelists saw a need for more detail to be made available. Questions revolving around long-term planning between the entities were common as were ones that asked how the CSREES mission and goals were being supported through its partnership with universities and vice versa.*

### **Issue 2: Agency Response:**

CSREES has taken several steps to strengthen its relationship with university partners. First, to the extent possible, implementing partners will be attending the CSREES strategic development exercise which is intended to help partners and CSREES fully align what is done at the local level. Second, CSREES has realigned the state assignments for its National Program Leaders (NPLs). Each state is now assigned to one

specific NPL. By reducing the number of states on which any individual NPL is asked to concentrate and assigning and training NPLs for this duty, better communication between state and NPLs should occur. Finally, several trainings that focused on the POW were conducted by CSREES in geographic regions throughout the country. A major goal of this training was to better communicate CSREES goals to state leaders which will facilitate better planning between the universities and CSREES.

### **Issue 3: National Program Leaders**

*Without exception the portfolio review panels were complimentary of the work being done by NPLs. They believe NPLs have significant responsibility, are experts in the field and do a difficult job admirably. Understanding the specific job functions of NPLs was something that helped panelists in the review process. Panelists did however mention that often times there are gaps in the assignments given to NPLs. Those gaps leave holes in programmatic coverage.*

### **Issue 3: Agency Response:**

CSREES values the substantive expertise that NPLs bring to the Agency and therefore requires all NPLs to be experts in their respective fields. Given the budget constraints often times faced by the agency, the agency has not always been able to fund needed positions and had to prioritize its hiring for open positions. In addition, because of the level of expertise CSREES requires of its NPLs, quick hires are not always possible. Often, CSREES is unable to meet the salary demands of those it wishes to hire. It is essential that position gaps not only be filled but that they be filled with the most qualified candidate.

Operating under these constraints and given inevitable staff turnover, gaps will always remain. However, establishing and drawing together multidisciplinary teams required to complete the portfolio reviews has allowed the Agency to identify gaps in program knowledge and ensure that these needs are addressed in a timely fashion. To the extent that specific gaps are mentioned by the expert panels, the urgency to fill them is heightened.

### **Issue 4: Integration**

*Lack of integration has been highlighted throughout the panel reviews. While review panelists certainly noted in their reports where they observed instances of integration, almost without fail panel reports sought more documentation in this regard.*

### **Issue 4: Agency Response:**

Complex problems require creative and integrated approaches that cut across disciplines and knowledge areas. CSREES has recognized the need for these approaches and has undertaken steps to remedy this situation. CSREES has recently mandated that up to twenty percent of all NRI funds be put aside specifically for integrated projects. These projects cut across functions as well as disciplines and ensure that future Agency work will be better integrated. Finally, integration is advanced through the portfolio process which requires cooperation across units and programmatic areas.

### **Issue 5: Extension**

*While most panels seemed satisfied at the level of discussion that focused on research, the same does not hold true for extension. There was a call for more detail and more outcome examples based upon extension activities. There was a consistent request for more detail regarding not just the activities undertaken by extension but documentation of specific results these activities achieved.*

### **Issue 5: Agency Response:**

Outcomes that come about as a result of extension are, by the very nature of the work, more difficult to document than the outcomes of a research project. CSREES has recently shuffled its strategy of assigning NPLs to serve as liaisons for states. In the past, one NPL might serve as a liaison to several states or a region comprised of states. Each state will be assigned a specific NPL and no NPL will serve as the lead representative to more than one state. This will ensure more attention is paid to extension activities.

In addition CSREES also has been in discussion with partners and they have pledged to do their best to address this issue. The new POW will make extension-based results and reporting a priority. Placing heavy emphasis on logic models by CSREES will have the effect of necessitating the inclusion of extension activities into the state's POWs. This, in turn, will require more reporting on extension activities and allow for improved documentation of extension impact.

#### **Issue 6: Program Evaluation**

*Panelists were complimentary in that they saw the creation of the Office of Planning and Accountability and portfolio reviews as being the first steps towards more encompassing program evaluation work; however, they emphasized the need to see outcomes and often stated that the scores they gave were partially the result of their own personal experiences rather than specific program outcomes documented in the portfolios. In other words, they know first hand that CSREES is having an impact but would like to see more systematic and comprehensive documentation of this impact in the reports.*

#### **Issue 6: Agency Response:**

The effective management of programs is at the heart of the work conducted at CSREES and program evaluation is an essential component of effective management. In 2003 the PREP process and subsequent internal reviews were implemented. Over the past three years fourteen portfolios have been reviewed by expert panel members and each year this process improves. NPLs are now familiar with the process and the staff of the Planning and Accountability unit has implemented a systematic process for pulling together the material required for these reports.

Simply managing the process more effectively is not sufficient for raising the level of program evaluations being done on CSREES funded projects to the highest standard. Good program evaluation is a process that requires constant attention by all stakeholders and the agency has focused on building the skill sets of stakeholders in the area of program evaluation. The Office of Planning and Accountability has conducted training in the area of evaluation for both NPLs and for staff working at Land-Grant universities. This training is available electronically and the Office of Planning and Accountability will be working with NPLs to deliver training to those in the field.

The Office of Planning and Accountability is working more closely with individual programs to ensure successful evaluations are developed, implemented and the data analyzed. Senior leadership at CSREES has begun to embrace program evaluation and over the coming years CSREES expects to see state leaders and project directors more effectively report on the outcomes of their programs as they begin to implement more rigorous program evaluation. The new POW system ensures data needed for good program evaluation will be available in the future.

#### **Issue 7: Logic Models**

*Panelists were consistently impressed with the logic models and the range of their potential applications. They expressed the desire to see the logic model process used by all projects funded by CSREES and hoped not only would NPLs continue to use them in their work but, also, that those conducting the research and implementing extension activities would begin to incorporate them into their work plans.*

#### **Issue 7: Agency Response:**

Logic models have become a staple of the work being done at CSREES and the Agency has been proactive in promoting the use of logic models to its state partners. Two recent initiatives highlight this. First, in 2005, the POW reporting system into which states submit descriptions of their accomplishments was completely revamped. The new reporting system now closely matches the logic models being used in portfolio reports. Beginning in fiscal year 2007, states will be required to enter all of the following components of a standard logic model. These components include describing the following:

- Program Situation
- Program Assumption

- Program Long Term Goals
- Program Inputs which include both monetary and staffing
- Program Output which include such things as patents
- Short Term Outcome Goals
- Medium Term Outcome Goals
- Long Term Outcome Goals
- External Factors
- Target Audience

The system is now operational and states were required to begin using it by June of 2006. By requiring the inclusion of the data components listed above states are in essence, creating a logic model that CSREES believes will help improve both program management and outcome reporting. Please note a sample logic model has been included in Appendix A.

The second recent initiative by CSREES regarding logic models concerns a set of training sessions conducted by Planning and Accountability staff. In October and November of 2005 four separate training sessions were held in Monterrey, California, Lincoln, Nebraska, Washington D.C. and Charleston, South Carolina. More than 200 people representing land-grant universities attended these sessions where they were given training in logic model creation, program planning, and evaluation. In addition, two training sessions were provided to NPLs in December 2005 and January 2006 to further familiarize them with the logic model process. Ultimately it is hoped these representatives will pass on to others in the Land-Grant system what they learned about logic models thus creating a network of individuals utilizing the same general approach to strategic planning. These materials also have been made available to the public on the CSREES website.

### **III. RESPONSE TO PREP RECOMMENDATIONS REGARDING PORTFOLIO 3.2B**

#### *Strategic Planning and Performance Leadership*

The review team for both the animal production and animal protection portfolio reviews recommended that the Animal Systems Team develop a strategic plan for the combined portfolios and that plan be linked to performance tracking and evaluation of these portfolios.

The portfolio review process reinforced the need and value for strategic alignment of programs with broader goals and objectives of the department and the agency to address critical national needs. The Animal Systems Team believes that strategic planning is a key element of effective operations and management. The program leadership of the Animal Systems Team takes formal responsibility for strategic planning, which is a priority activity.

The Animal Systems Team has initiated steps to develop an Animal Systems Roadmap that will serve as both a strategic plan as well as a performance plan. The Roadmap will be used to develop a shared vision, goals, and objectives, and will help to provide direction for the programs represented in the portfolios. The performance tracking and program evaluation efforts for these portfolios would be linked to the Roadmap as well as the CSREES strategic plan. Performance deficits will be identified as well as strategies to correct these deficits. The agency's strategic plan as well as portfolio reviews and self studies will serve as the baseline and starting point for the Roadmap.

The strategic plan will be a visionary, conceptual and directional document, which will serve as a framework for making decisions, provides the basis for our performance plan, and will be used as an information piece to explain our work to others especially those outside our organization—in order to

inform, motivate and involve them. The plan will be developed through an inclusive, participatory process in which the Animal Systems Team at all levels will take on shared responsibility and ownership. It will be based on a shared vision that is value-driven and leads to targeted action. Specific goals and objectives within the strategic plan will allow for performance measures and benchmarking that will help the team in its overall self assessment and planning to identify key strengths, weaknesses, and competencies of the portfolios.

The performance plan will be a tactical, focused, document that describes executable and measurable activities that are to be undertaken to help the Team achieve the goals and objectives described in the strategic plan. All of the goals, objectives, and activities will be directly aligned with the goals and vision of the agency.

Through our strategic planning process, we will be able to identify opportunities and potential gaps, which in turn will help the team to more effectively allocate limited resources, enhance performance, and enhance the service we provide to our partners and stakeholders. We will routinely monitor and review our progress and revise our strategic direction as appropriate.

### *Performance Tracking*

Both portfolio review reports indicated a need to improve performance tracking and accountability documentation for the two portfolios. The Animal Systems Team also recognized this need in the preparation of the self studies prior to both portfolio reviews.

The Animal Systems Team has developed a process to enhance performance tracking on an annual basis for both portfolios. The Team will develop an Annual Performance Report for the Animal Production and Protection portfolios to enhance performance tracking of both portfolios.

The report will serve as the basis for the annual self assessments of these portfolios and will improve the efficiency of conducting the 5-year external review of both portfolios. This report will indicate program shifts, resource trends, highlighted accomplishments, and impacts by each knowledge area. The process will serve as a valuable tool from a program leadership perspective in enhancing the quality, relevancy and performance of the diverse portfolios managed and led by the Animal Systems Team.

The Annual Performance Report should serve the needs of both the program leadership and the planning/accountability functions of the agency. Annual reporting will help assure that programs are aligned with the agency's strategic goals and address critical national needs. The annual report will also help to demonstrate how we make a difference by documenting program accomplishments and impacts. The process will optimize the time and effort of NPLs and program specialists in achieving our performance leadership goals. The annual performance reporting will be integrated into the team's regular business/performance management cycle allowing for a more orderly approach to program planning and performance tracking. Emphasis will be placed on improving performance through enhanced performance leadership.

The Animal Systems Team believes that performance evaluation is important in terms of our program leadership function and will help to address performance deficits.

### *ARS and CSREES Program Planning and Stakeholder Interactions*

The Animal Systems Team clearly recognizes the importance of enhanced integration of the CSREES and ARS programs in Animal Production and Protection. CSREES and ARS jointly sponsored two major national stakeholder workshops for animal production and protection since the portfolio reviews were

conducted. The ARS/CSREES 2005 National Animal Health Program Planning Workshop was held in Kansas City, MO on September 20-21, 2005. PowerPoints from the workshop may be accessed at: [http://www.ars.usda.gov/research/programs/programs.htm?np\\_code=103&docid=9806](http://www.ars.usda.gov/research/programs/programs.htm?np_code=103&docid=9806).

These workshops are part of the ARS 5-year performance planning and management cycle, and are now part of the CSREES performance planning cycle. Based on the workshop, ARS developed its next 5-year strategic plan and research projects. CSREES used the priorities to inform the development of the FY06 and FY07 National Research Initiative (NRI) Competitive Grants Programs, specifically Animal Protection and Biosecurity. These joint workshops will greatly enhance the integration of ARS and CSREES programs consistent with the needs of diverse stakeholders. These workshops help to ensure the relevancy of major research programs of both agencies. Linked to other performance planning and tracking efforts of the Animal Systems Team, these efforts should enhance the quality and performance of programs within both portfolios. Stakeholders have been supportive of these workshops and the fact that CSREES and ARS are engaged in joint program planning and stakeholder interaction. ARS and CSREES further strengthened its virtual cross-agency Animal Health Team by initiating monthly coordination meetings that are held alternately between CSREES (Washington, DC) and ARS (Beltsville, MD). Periodically, when conflicting schedules warrant, teleconferences are substituted to maintain up to date communication. Emails between both teams are also very frequent to share information of mutual benefit. An example of a new collaborative activity involving both ARS and CSREES is the upcoming "Advances in Immunology and Vaccine Discovery EU-US Workshop" that will be held Dec.12-14, 2006 at the ARS-National Animal Disease Center in Ames, Iowa. While our ARS counterparts have taken the lead in planning and funding this workshop, CSREES is also a co-sponsor agency. The workshop report will be used by both ARS and CSREES to strategically plan our respective future portfolios together for immunology and innovative vaccine discovery.

Within CSREES, in addition to the weekly Animal Systems Coordination Meeting, the Animal Health/Protection Team also holds a weekly lunch meeting during which each member shares activity updates and joint planning occurs. The virtual ARS/CSREES Animal Health Team also maintains frequent communication with APHIS, including an annual ARS/APHIS/CSREES research coordination meeting held in one of the 3 agencies. Through participation on Interagency Working Groups, both within USDA and beyond, close interactions occur for specific priority areas among all 3 agencies. For example, a USDA interagency working group for Avian Influenza convenes face-to-face on a weekly basis to assure that all relevant participants are informed and coordinated. The Foreign Animal Disease Threat Subcommittee, part of the National Science and Technology Committee from the Executive Office, connects not only the USDA-CSREES with other parts of USDA, but also other Federal partners, such as the NIH, DOD, EPA, and others. The National Animal Health Laboratory Network (NAHLN) Steering Committee links CSREES, APHIS, American Association of Veterinary Laboratory Diagnosticians, and the state diagnostic laboratories participating in the NAHLN through quarterly meetings across the country, as well as frequent teleconferences.

### *Improve Integration Among Knowledge Areas*

The Animal Systems Team is moving forward in terms of program integration by aligning goals and objectives for each knowledge area within the Animal Systems portfolios with goals and objectives in the broader agency strategic plan. The Team continues to move toward a systems-based approach to program planning, delivery, and performance tracking. Significant progress continues in integrating the competitive grants portfolio with other programs by building a strong team across units (Competitive Programs and Plant and Animal Systems). The team will continue to focus on integration of programs in terms of biological systems as well as commodity/species based production systems. As mentioned above, the team also is taking major steps to enhance integration with ARS and other federal agencies.

The Animal Systems team recognizes that Planning and Accountability has defined portfolios based on the aggregation of knowledge areas used for tracking projects and expenditures. Use of these knowledge areas



in reporting performance across program areas does result in biases from a review and assessment perspective. Programs and projects are actually more integrated across knowledge areas.

#### *Lack of Measurable Outcomes and Impacts*

The Animal Systems Team concurs with this observation; however, this is a broad systemic problem across the agency. Improved reporting systems for extension and higher education integrated with the research reporting that provides measurable outcomes and impacts are needed. The agency is moving forward to address this issue regarding reporting needs and systems.

The Animal Systems Team recognizes that there need to be new approaches and visionary thinking regarding the tracking of outcomes and impacts. There is a need to focus on performance reports instead of activity reports. Current systems being discussed within the agency are project-based reporting systems. Most reportable impacts occur well after projects are terminated and are not based on inputs from a single project. The agency needs to consider new models for performance tracking and impact documentation.

#### *Improved Integration of Research, Extension, Higher Education*

The Animal Systems Team is aware of the need to do a better job of integrating our research and extension portfolios along with higher education. This opportunity presents challenges as the majority of our extension efforts are being funded through formula funds with little ability to track specific efforts related to extension efforts in Animal Systems. This is true for all formula-based extension programs. Integration is occurring primarily at the state level. As stated above, the agency is moving forward to address this issue in terms of accountability and performance tracking.

Regarding integration with higher education programs, the team is engaged in many of the programs within the higher education portfolio. It should be noted that the programs within the higher education portfolio of the agency do not contain major investments in undergraduate education. The team recognizes the critical need for and importance of undergraduate education; however, even though the agency tracks undergraduate enrollment in agriculture, the agency does not have a significant investment or a portfolio of programs in support of undergraduate education. Thus, calls for greater integration of research programs with undergraduate education programs must be placed in perspective and in the context of the CSREES federal investment.

#### *Integration with Other Portfolios*

The team is well aware of the need to assure broader programmatic integration with KAs in other portfolios. The team will highlight activities that demonstrate this integration and identify areas for improved integration across the agency in future reports and action. For example, research, education, and extension related to markets and trade issues to generate ideas and strategies for increasing the exporting of U.S. animal products is discussed in a separate portfolio. There is an NRI Markets and Trade Program, for example, that focuses a portion of competitive dollars in this area. Research, education, and extension addressing animals and the environment are covered in yet another portfolio review. Information available there provides strong evidence of impacts and activity for air quality, water quality, etc. as affected by animal production and pathogens. For example, the NRI Air Quality Program focuses a portion of competitive dollars in this area which supports solving the issue of odor emanating from animal production units.

#### *Improved Leadership for the Extension Function*

Although not explicit, the review team indicated that there is a need to enhance the agency's roles in terms of leadership for the extension function within the Animal Systems portfolio. The team is addressing opportunities to strengthen leadership for the extension function. NPLs are being asked to report accomplishments and describe their leadership roles for research and extension functions. The team will assess opportunities to strengthen leadership relative to extension programming.

NPLs within the team network extensively with extension counterparts in the states. Meetings with extension specialists and special sessions on extension programs are held in conjunction with professional meetings and national workshops. The team will integrate extension goals into performance planning and leadership functions; however, as mentioned above, there are still major deficiencies in terms of reporting extension accomplishments and impacts. These deficiencies must be resolved at the agency level.

Veterinary Extension leadership is an ongoing activity. Currently, CSREES' full-time NPL who focuses on veterinary extension is detailed on special assignment to Afghanistan. Until he returns, or until he leaves the agency, we can not hire another NPL with a primary focus on veterinary extension. To fill this gap, in addition to his primary NPL role for Veterinary Science, Dr. Gary Sherman assumed the role of acting National Program Leader for Veterinary Medicine, Population Health, and Extension. Jillien Klok, Program Specialist for Agrosecurity and Animal Health, is also dedicating substantial time to veterinary extension. To further expand the visibility of extension the publicly available web-based "Directory of Extension Veterinarians in the US" was created in 2005 and is updated quarterly ([www.usextension.org](http://www.usextension.org)). The website is shared with a broad group of partners/stakeholders such as ARS, APHIS, CDC, and FEMA. CSREES' Animal Health Team has also submitted a budget request to the agency to support one IPA who would interface between veterinary extension and animal agrosecurity. Budgetary availability permitting, the team will consider other such requests in the future.

#### *Vision and Forward Thinking*

The review report indicated that the objectives described in the review documents utilize language of 10 years ago. Further the team recommended that the "portfolio needs to focus on economic, sociological, and global opportunities for producers as stated in the strategic plan, and get beyond the 'cheap food' mindset."

The team agrees with this finding. These deficiencies will be addressed in the development of the Roadmap and the Annual Performance Report. One example of a developing vision is an initiative to accelerate the use of animal genomics to solve problems in animal health. An "International Symposium on Animal Genomics for Animal Health" will be held at OIE Headquarters in Paris on October 23-25, 2007. The CSREES Animal Health Team has requested \$16,000 of PAS program enhancement special project funds to allow CSREES to be a sponsoring agency, as well as allow two NPLs to attend the symposium.

#### *Concluding Remarks*

CSREES has an ongoing animal well-being/welfare commitment, including dedicating a portion of competitive funds to this area through the Animal Protection and Biosecurity Program. The Animal Well-Being element of the Animal Protection and Biosecurity program focuses on enhancing animal well-being throughout the food production cycle. This program will provide information on how animals of agricultural importance in the U.S. interact with the production environment and respond to animal management practices. Where appropriate, management practices will be developed that improve animal well-being. Such knowledge is needed to remain competitive globally and to maintain consumer trust through science-based studies. Research to ensure animal well-being may also help decrease animal management and health-care costs. This area addresses agricultural food security by helping to assure continued access of U.S. animal products to national and international markets. Specifically, based on stakeholder input, 44.0B Animal Protection and Biosecurity: Animal Well-Being, includes:

- a research priority: *Develop science-based criteria to standardize measurements of well-being, including pain, stress, fear, and behavioral needs, and the assessment of how these conditions impact animal well-being; and,*
- an integrated (research, education, extension) priority: *Develop, test, and recommend alternative management practices for animal well-being and adaptability, including housing, handling, transportation, and harvest (for example, gas stunning/slaughter procedures for food animals).*

CSREES initiated in 2006 an NPL Liaison program that links two NPLs to each US state and territory. This program that connects a cadre of CSREES NPLs in periodic communication with administrators of the land grant universities (e.g., Deans, State Agriculture Experiment Station Directors, State Cooperative Extension Directors, Department Heads, etc.) was instituted to allow better two-way feedback between Partners and CSREES.

CSREES will continue to represent the unmet resource needs to better solve animal health problems both within the USDA and with OMB. The President's budget that is submitted to Congress each year, however, represents the decision of the President's office after receiving input from a myriad of areas. Historically, OMB has supported increased funding for animal health related areas. For example, each year OMB requests from Congress an increase of funding for CSREES and the NAHLN, Critical Issues, and the NRI. The ultimate funding allocations appropriated to CSREES, however, are determined by the US Congress. CSREES can not lobby for funds from Congress, but will continue to present a strong animal health portfolio and impacts when requested by Congress through Congressional written inquiries and subcommittee presentations.

The current Administration's policy is to focus the limited competitive funds (with the exception of the Small Business Innovative Research (SBIR) program) into fewer high priority areas and not to change this degree of focus without additional appropriations from Congress. The Animal Health Team must adhere to this agency policy, specifically for the NRI Animal related programs. Nevertheless, both research and extension formula funding are determined at the individual state level where the degree of focus is determined by state administrators in conjunction with stakeholder input. The Animal Health Team is also committed to determining the NRI focused priorities based on input from a broad group of stakeholders/partners. Historically this has been the case, and the team will continue to do so.

*The Animal Protection Team has responded to specific recommendations made by the 2005 external review panel within each of the 14 elements. The responses are as follows:*

1. Relevance

1.1. Scope

- a. *Enumerate the value of the industry, the potential value of working on a problem, and the value of a successful implementation of the knowledge generated by a CSREES-funded project*

The Animal Protection Team relies on publicly available information through the National Agriculture Statistics Service and Economic Research Service to enumerate the value of specific animal agriculture industries. The potential value of working on a problem as well as the value of successful implementation is unique to each project. Therefore, this information must be provided by the investigator within the rationale, significance and justification sections of the project proposals. During review of each proposal, this information is given considerable weight in determining potential for funding of a given project.

- b. *Animal welfare research and extension efforts need to be prioritized and the right mix of expertise assembled to better define the concept of animal welfare in an efficient and effective way*

The Animal Protection Team will continue to work with multi-state research committees to help prioritize research and related extension activities for animal welfare. The Hatch formula funds are available for animal welfare projects, and the NRI program will continue to scan the horizon for cutting-edge research priorities. The National Program Leader for Animal Welfare continues to work with professional organizations and commodity groups to emphasize the

ongoing need to address animal welfare issues and promotes diversity of opinion through various meetings. Furthermore, the NRI program does list priorities for Animal Well-being Assessment and Improvement.

- c. *Insufficient credit is given to the value of the acquisition of new knowledge and the education of new scientists; CSREES should make investments that provide an insurance policy for American agriculture and the American public*

Credit and value of research and education investments are only fully realized through complete documentation of outcomes, accomplishments, and impacts. Current insufficiencies in this area are being addressed by the Agency's implementation of One Solution.

## 1.2. Focus

- a. *Maintain scientific knowledge in a number of areas (maintain capacity to address new or emerging diseases)*

Although the National Research Initiative Program is focused on three priority diseases per commodity, Formula Fund and Special Grant Programs continue to provide funding for a much broader range of disease issues.

- b. *Maintain high scientific standards in research*

The Animal Protection Team will continue to maintain high scientific standards in research through the peer-review and merit-review processes, ensuring quality, relevance, and performance of research projects.

## 1.3. Emerging Issues

- a. *New working paradigms will be needed to avoid complacency given that the world is changing rapidly*

The Animal Protection Team addresses changing priorities through the wise use of new funds (National Animal Health Laboratory Network, Coordinated Agriculture Projects), reapportionment of funds (Veterinary Immune Reagents Network), and the redirection of existing funds through annual Animal Protection RFA review and revision.

- b. *Animal welfare is a new and emerging issue that needs to be addressed with good science; keep policy makers and public fully informed of this issue*

Animal welfare issues are addressed with good science through the cooperation of expert scientists on multi-state committees, the competitive process within the NRI program, and peer-review requirements. Investigators are encouraged to publish their findings in peer-reviewed journals (e.g. Journal of Applied Poultry Research), keeping policy makers and the public fully informed of this issue. Furthermore, information on animal welfare issues and programs is readily available through the publication of proceedings of symposia (e.g. Future Trends in Animal Agriculture, Poultry Science Association Bio-Ethics Symposium), the up-to-date CSREES Animal Well-being website, and the animal welfare information center at the national agricultural library keeping policy makers and the public fully informed.

## 1.4. Integration

- a. *Bring appropriate parties together to develop a new working paradigm that structures how CSREES operates internally (this should then be rolled out to Land-Grant partners via the RFA process)*

New paradigms to further integrate research, education, and extension are regularly implemented (e.g. One Solution, Coordinated Agriculture Projects).

### 1.5. Multidisciplinary Balance

- a. *The balance of fundamental to mission-oriented research is commendable; however, additional effort in this area is needed*

The balance between fundamental and mission-oriented research is under ongoing review by the Animal Protection National Program Leader staff to achieve optimal balance.

## 2. Quality

### 2.1. Significance of Outputs and Findings

- a. *Outcomes need to be measured, the results packaged in a consumable way and then promulgated to inform and promote CSREES' efforts*

The Animal Protection Team is addressing this concern by the completion of an annual performance report. This report will include accomplishments and impacts, which will be provided to stakeholders. National Program Leaders will also share subsections of this report with appropriate stakeholder partners and groups, as well as present some of this information on the CSREES website.

- b. *Uses of CSREES funds need to be tracked and, perhaps, even directed specifically towards policy purposes*

Uses of CSREES funds are tracked through CRIS and various forms of annual performance reporting. Peer-review publication resulting from CSREES funded research provides the base and support for the development of sound policy. CSREES has specific programs which have active projects supporting policy issues in areas such as Markets & Trade.

### 2.2. Stakeholder Input

- a. *The self-review document is not explicit with regard to the efforts that have been made to reach out to stakeholders*

The Animal Protection Team's annual performance report will include efforts made by the Team to reach out to stakeholders. This report will be available to stakeholders annually.

- b. *Have a clear definition of stakeholder; take a more systematic approach to the methods and timing of connecting with stakeholders*

The Animal Systems Team is in the process of discussing the definition of stakeholder, as well as innovative ways to obtain stakeholder input.

### 2.3. Portfolio Alignment

- a. *No specific recommendations made*

N/A

## 2.4. Appropriate Methodology

- a. *Highly advanced, cutting-edge methods may not always be required to answer some important issues*

Although the Animal Protection Team encourages the development of highly advanced and cutting-edge methods to answer research questions, the Team does recognize that these methods are not always appropriate. The Team supports the use of the most appropriate methodology for each project.

- b. *Need to educate pool of experts on many diseases, not just certain diseases*

While limited funds require that the NRI focus on a limited number of diseases, formula funds provide the opportunity for a wider variety of diseases to be addressed.

## 3. Performance

### 3.1. Portfolio Productivity

- a. *Need an effective and appropriate method for evaluating and reporting productivity*

Newly implemented, the Animal Protection Team will complete an annual performance report, which will include information on previous years' funding history, accomplishments, impacts, and program shifts. This report will help ensure the quality, relevance, and performance of the Team's programs and disseminated as appropriate.

- b. *Determine the tangible and intangible outcomes, and how they will be measured and recognized, with due credit given and reported*

CSREES' adoption of One Solution is designed to help the agency to better capture outcomes from all research, education, and extension projects. Once captured, these outcomes can be better incorporated into the portfolio review documents for recognition and reporting purposes.

- c. *Incorporate education and extension into the logic models*

The Animal Protection Team will review and revise logic models to include education and extension.

### 3.2. Portfolio comprehensiveness

- a. *Given the breadth of the portfolio, the amount of funds appears to be spread too thin; "focusing" could be helpful but not uniformly accepted*

The Animal Protection Team recognizes the need for focusing limited funds, and has addressed this through prioritizing disease eligibility within the NRI. However, other animal protection funding opportunities remain open to a larger variety of diseases and animal health issues (e.g. formula fund programs).

- b. *Cost/benefit analysis needs to be used to prioritize disease issues that may be worth investigating*

The Animal Protection Team is committed to considering cost/benefit analyses as part of future stakeholder input.

- c. *Maintain an infrastructure of facilities and continue to train individuals to carry on the activities of this agency so that the very dynamic and varied needs of the future are met*

Infrastructure needs and training are addressed through Formula Fund Programs, and the National Research Initiative and Higher Education Programs contribute to the training of a large number of scientists.

### 3.3. Portfolio Timeliness

- a. *No specific recommendations made*

N/A

### 3.4. Agency Guidance

- a. *Clarify what fiscal and administrative information and training has penetrated to the investigator level*

Fiscal and administrative information and training is offered by CSREES through administrative conferences and grantsmanship/PI workshops. Investigators able to attend grantsmanship/PI workshops receive training directly. For those investigators unable to attend training in person, it is their responsibility to contact the administrator/personnel who have received training at their institution. Furthermore, investigators are always encouraged to take advantage of the extensive information on CSREES' website, or contact National Program Leaders directly. Past grantsmanship workshops are also made available online for those who could not attend.

- b. *Improve communication with physical geographic contact from top to bottom, bottom to top, and laterally (for example, NPLs need to communicate available programs to investigators as well as institutional administrators)*

The Animal Protection Team tries to disseminate program information as widely as possible to both administrators and investigators. However, due to the challenges of maintaining an updated investigator database, the Team relies on appropriate administrative contacts at institutions to ensure appropriate distribution of information. The Animal Protection Team plans to consolidate relative Animal Protection program opportunities into one communication to the American Association of Veterinary Medical Colleges (AAVMC) for further distribution.

- c. *Administrators should communicate better with investigators / recipients and feedback should be expected and incorporated into work plans*

The Animal Protection Team is increasing communications with investigators/recipients by holding PI awardee workshops for competitive programs. Furthermore, National Program Leaders have annual communications with investigators of various non-competitive programs, and when there are suggestions for improvement, the Team addresses it to the best of their ability.

### 3.5. Portfolio Accountability

- a. *Investigators need to be reminded that demonstration of wise use of all funds, as well as research outcomes, is paramount for assuring sustained or increased federal research funding in the future*

The Animal Protection Team's PI awardee workshops are proactively used to remind investigators of the importance of wisely using all funds and reporting outcomes. It is communicated to these investigators that these are critical factors in determining future funding from the Animal Protection Programs, from other CSREES programs, and from the USDA at large. Through our partnerships with institutional administrators, we stress the importance of formula fund project progress reports which accurately reflect accomplishments and impacts of these projects. Other non-competitive programs are constantly monitored by National Program Leaders for the demonstration of progress and fiscal responsibility. The Animal Protection Team will renew the commitment to remind investigators that the demonstration of progress and fiscal responsibility directly affects future federal funding.

#### **IV. SUMMARY OF UPDATES TO THE 2005 PORTFOLIO REVIEW REPORT**

In preparation for the Animal Protection Self Assessment, the Animal Protection Team compiled a 2006 Animal Protection Annual Performance Report. This report is based on the 2005 Portfolio Review Report and presents updated information on the following sections: KA Situation, KA Investments, KA Program Shifts, KA Research-Extension Highlights, KA Impact Highlights, and KA Logic Models. General Animal Protection information was also updated such as: Responses to External Panel Recommendations, list of Peer Panels held, list of Congressionally Directed Line Items within Animal Systems, list of Multi-State Committees within Animal Protection, and information regarding Principal Investigator and Stakeholder Workshops with CSREES Animal Protection involvement. Furthermore, KAs 721 and 722 were added to the Animal Protection portfolio. Listed below are selected funding tables and logic models.

**TABLE IV-A: Number of Research Projects by Knowledge Area for Animal Protection**

Portfolio	Knowledge Area	Number of Active Projects	
		2004	2005
<b>Animal Protection</b>	311 - Animal Diseases	823	810
	312 - External Parasites and Pests of Animals	109	118
	313 - Internal Parasites in Animals	96	105
	314 - Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	111	113
	315 - Animal Welfare/Well-Being and Protection	160	173
	721 - Insects and Other Pests Affecting Humans	94	105
	722 - Zoonotic Diseases and Parasites Affecting Humans	60	77



**TABLE IV-B: CSREES Funding by Knowledge Areas for Animal Protection**

Portfolio	Knowledge Area	Fiscal Year (\$ in thousands)	
		2004	2005
Animal Protection	311 - Animal Diseases	34,627	26,296
	312 - External Parasites and Pests of Animals	2,724	2,555
	313 - Internal Parasites in Animals	1,912	2,144
	314 - Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	911	860
	315 - Animal Welfare/Well-Being and Protection	2,573	3,771
	721 - Insects and Other Pests Affecting Humans	1,663	1,889
	722 - Zoonotic Diseases and Parasites Affecting Humans	697	2,138
	<b>Total</b>	<b>45,107</b>	<b>39,654</b>

**TABLE IV-C: CSREES Funding for Animal Protection by Source**

Funding Source	Fiscal Year (\$ in thousands)	
	2004	2005
HATCH	8,772	8,626
Mc-Stn	99	136
Evans Allen	507	690
1433 Animal Health	3,525	3,679
Special Grants	3,035	4,252
NRI Grants	21,767	15,299
SBIR Grants	2,083	2,217
Other CSREES	5,319	4,755
<b>Total CSREES</b>	<b>45,107</b>	<b>39,654</b>

**TABLE IV-D: Funding From All Sources for Animal Protection**

Funding Source	Fiscal Year (\$ in thousands)	
	2004	2005
CSREES	45,106	39,653
Other USDA	8,976	14,552
Other Federal	65,740	156,128
State Appropriations	73,178	137,681
Self Generated	9,733	25,154
Industry/Grants and Agreements	15,991	26,026
Other Non-Federal	16,620	37,976
<b>Total</b>	<b>235,343</b>	<b>437,170</b>
<b>CSREES as % of Total</b>	<b>19%</b>	<b>9%</b>

**TABLE IV-E: Commodity Support by Funding Source for Animal Protection**

		Commodity (\$ in thousands)							
Year	Funding Source	Poultry	Beef	Dairy	Swine	Sheep	Equine	Aquatic	Other
<b>2004</b>	CSREES	6,386	4,455	6,849	5,353	670	1,116	5,584	6,300
	Other USDA	1,320	1,647	1,211	394	598	108	434	1,410
	Other Federal	901	20,493	6,055	2,661	9,874	665	704	14,654
	State Appropriations	9,861	9,089	7,340	5,132	3,265	3,236	2,994	18,423
<b>2005</b>	CSREES	4,726	4,584	6,789	2,401	1,225	1,485	4,267	6,489
	Other USDA	1,542	2,818	1,475	538	490	115	612	4,231
	Other Federal	844	32,298	17,493	5,991	1,995	2,504	3,892	68,657
	State Appropriations	14,546	16,127	15,332	6,656	4,906	8,104	3,850	49,460

**TABLE IV-F: Commodity Support by CSREES Funding Source for Animal Protection**

		Commodity (\$ in thousands)							
Year	Funding Source	Poultry	Beef	Dairy	Swine	Sheep	Equine	Aquatic	Other
<b>2004</b>	HATCH	1,525	1,202	1,045	633	173	241	241	2,143

	Mc-Stn	0	0	0	0	0	0	4	28
	Evans Allen	0	0	0	15	172	0	104	202
	1433 Animal Health	357	571	933	375	118	307	44	337
	Special Grants	126	471	200	0	127	161	536	521
	NRI Grants	4,338	1,864	3,980	4,231	41	274	1,595	1,047
	SBIR Grants	0	247	240	0	0	134	671	711
	Other CSREES	40	99	451	99	40	0	2,389	1,310
<b>2005</b>	HATCH	1,475	1,257	909	594	120	373	191	1,940
	Mc-Stn	0	0	0	0	6	0	17	49
	Evans Allen	0	0	0	24	334	0	84	224
	1433 Animal Health	423	661	793	271	174	371	148	330
	Special Grants	106	476	356	0	109	138	588	1,222
	NRI Grants	2,571	2,102	4,273	1,402	157	455	450	1,283
	SBIR Grants	152	88	452	112	0	148	450	376
	Other CSREES	0	0	0	0	325	0	2,340	943

**TABLE IV-G: Scientist Year (SY) and Other Personnel Year (OY) Effort for Animal Protection**

Year Type	Fiscal Year (in thousands)	
	2004	2005
SYS	464.1	956.4
OYS	1,622.0	2,914.7
<b>Total</b>	<b>2,086.1</b>	<b>3,871.1</b>

## **V. 2006 SCORE CHANGES FOR 3.2B PORTFOLIO**

The 3.2B portfolio internal review team has changed the following scores from 2005 as follows:

### **2.2 Stakeholder Input**

PREP Score: 2

2006 Self-Score: 2.5

#### **Justification for Self-Score Increase:**

The Animal Protection Team addresses critical issues, needs, and priorities related to the critical animal health, well-being, and disease issues on the local, regional and national levels. Just as research programs are required to demonstrate relevance, quality and performance standards this is also a requirement for extension and education programs. National Program Leaders with responsibility in the Animal Protection portfolio have close working relationships and links to various stakeholder partners including research, education, and extension scientists and educators at the universities and colleges, other federal agencies, county agents, advocacy organizations, professional societies, advisory groups, and Congress. PAS Unit leaders also serve in advisory capacities, for example, to various departments at the universities and colleges. It is through these interactions, whether directly or indirectly, that CSREES obtains feedback which is instructive in identifying needs and establishing priorities that are relevant to the Mission and to the Portfolio.

The State Plans of Work (POW) covering research and extension programs receiving funding from CSREES also require documented input from stakeholders. Therefore, the POW and associated annual progress reports provide a continuous dialogue and interaction with stakeholders nationwide to ensure that top priority issues are being addressed. Similarly, relevant emerging issues are identified and subsequently addressed through this process. Interactions also occur via the CSREES comments on review of research proposals.

Furthermore, CSREES uses formal and informal processes to gather stakeholder input to ensure relevancy of programs that address critical needs at the local, regional, and national levels. These processes include, but are not limited to, stakeholder listening sessions, workshops, symposia, peer panel recommendations, RFA solicitations, white papers, Presidential Directives, and regulatory policies.

In 2005, in particular, the Animal Protection Team held a joint ARS/CSREES Animal Health Program Planning Stakeholder Workshop. The purpose of this workshop was to receive input from stakeholders, customers, and partners in planning the direction of the USDA intramural (ARS) and extramural (CSREES) national research programs. Invitees included federal and state partners, professional organizations, the livestock (beef, dairy, swine), equine and poultry industries, pharmaceutical companies, and other animal health allied industry partners. This workshop resulted in an increase in communication among ARS, CSREES, stakeholders, customers, and partners. Attendees prioritized research needs within commodity and cross-cutting topic areas, providing valuable input to ARS and CSREES national program leaders in animal health and protection. Not only will this information help guide ARS and CSREES animal health and protection research priorities for the next five years, it provides the opportunity for cooperative priority planning and coordination between ARS and CSREES. For instance, CSREES has used the priorities identified by stakeholders at this workshop to help shape the 2006 National Research Initiative's 44.0 Animal Protection request for proposals. Further information on this activity can be found in Appendix C of the 2006 Animal Protection Annual Performance Report.

## **VI. SUMMARY OF UPDATES TO THE 2005 ANNUAL PERFORMANCE REPORT**

In preparation for the internal self-scoring session, the Animal Protection Team compiled a 2006 Animal Protection Annual Performance Report. This type of report will be produced annually, and will improve investment and impact reporting across the Animal Systems Section. The internal self-scoring session resulted in a score increase from 95 to 96. Specifically, the score was increased from a 2 to a 2.5 for element 2.2 Stakeholder Input. This increase was a result of the improvement in stakeholder input for 2005, the year in which the ARS/CSREES Animal Health Program Planning Stakeholder Workshop was held. The Animal Protection Team is committed to addressing the concerns of the 2005 external expert panel reviewers, and is involved in an ongoing effort to improve agency reporting systems, revise strategic plans, design an Animal Systems Roadmap, and more effectively manage animal protection programs.